

CLAIMS

What is claimed is:

- 5 1. An apparatus for shifting a keyboard comprising:
 a base;
 a carriage movable on the base and configured with an upper surface for support of the
 keyboard; and
 a palm rest movable on the base offset from the carriage and operably connected to the
10 carriage through a coupler configured to enable movement of the carriage in a second
 direction when the palm rest is moved in an opposite first direction, whereby a user may
 place a hand on the palm rest and shift the palm rest in a selected direction so as to position a
 selected portion of the keyboard under the hand for ease of use.
- 15 2. The apparatus of claim 1 wherein the coupler comprises:
 a motor mounted in engaging relationship between the carriage and the base; and
 at least one actuation switch coupled to the palm rest and operably connected to the
 motor such that the movement of the palm rest triggers the actuation switch and actuates the
 motor so as to shift the carriage.
- 20 3. The apparatus of claim 2 wherein:
 a cog belt is installed on the base; and
 the motor is installed on the carriage so as to engage the cog belt.
- 25 4. The apparatus of claim 2 further comprising a positioning device mounted in engaging
 relationship between the carriage and the base and operably connected to the motor so as
 to provide data to the motor regarding the position of the carriage.

5. The apparatus of claim 4 wherein the positioning device is further mounted in engaging relationship with the palm rest.
6. The apparatus of claim 4 wherein the positioning device comprises:
 - 5 a positioning pulley rotatably mounted on the base; and
 - a carriage belt mounted on the carriage so as to frictionally engage the positioning pulley.
7. The apparatus of claim 6 wherein a pair of tensioning pulleys is rotatably mounted on the base substantially offset from the positioning pulley, the tensioning pulleys being
10 configured to frictionally engage the carriage belt so as to keep the carriage belt taught against the positioning pulley.
8. The apparatus of claim 6 wherein:
 - a reduction pulley mounted on the positioning pulley;
 - 15 a pair of offset idler pulleys are mounted on the base; and
 - a palm rest belt is frictionally mounted between the reduction pulley and the idler pulleys and is configured with a positioning tab located between the idler pulleys so as to selectively engage the actuation switch when the palm rest is moved, whereby the movement of the palm rest both triggers the actuation switch and rotates the positioning pulley.
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9. The apparatus of claim 8 wherein the diameter of the reduction pulley is approximately one-sixth of the diameter of the positioning pulley, thereby creating an approximately six-to-one reduction and providing approximately six inches of travel of the carriage for every one inch of travel of the palm rest.
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10. The apparatus of claim 1 wherein the coupler comprises:
 - a positioning pulley rotatably mounted on the base;
 - a reduction pulley mounted on the positioning pulley;

a carriage belt mounted on the carriage so as to frictionally engage the positioning pulley;

a pair of offset idler pulleys mounted on the base; and

a palm rest belt frictionally mounted between the reduction pulley and the idler pulleys
5 and configured with a positioning tab located between the idler pulleys so as to selectively engage the palm rest, whereby the movement of the palm rest shifts the positioning tab, in turn shifting the palm rest belt and rotating the reduction pulley, in turn rotating the positioning pulley and shifting the carriage through the carriage belt.

10 11. The apparatus of claim 10 wherein the diameter of the reduction pulley is approximately one-sixth of the diameter of the positioning pulley, thereby creating an approximately six-to-one reduction and providing approximately six inches of travel of the carriage for every one inch of travel of the palm rest.

15 12. The apparatus of claim 1 wherein a power switch is installed on the palm rest and operably connected to the coupler, the power switch being configured to allow movement of the carriage when the power switch is selectively triggered.

13. The apparatus of claim 12 wherein:

20 a motor is mounted in engaging relationship between the carriage and the base;
the power switch provides power to the motor when selectively triggered; and

at least one actuation switch is coupled to the palm rest such that the movement of the palm rest triggers the actuation switch and actuates the motor so as to shift the carriage relative to the base.

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14. An apparatus for shifting a keyboard comprising:

a base;

a means for supporting the keyboard movable on the base;

a means for supporting a palm of a user, the palm supporting means movable on the base and offset from the keyboard supporting means; and

a means for shifting the keyboard supporting means in a second direction when the palm supporting means is shifted in an opposite first direction, wherein the user may place the palm on the palm supporting means and shift the palm supporting means in a selected direction so as to position a selected portion of the keyboard for ease of use.

15. An apparatus for shifting a keyboard comprising:

a base;

a carriage slidably mounted on the base and configured with an upper surface for support of the keyboard;

a motor mounted in engaging relationship between the carriage and the base;

a palm rest slidably mounted on the base offset from the carriage; and

at least one actuation switch mounted on the palm rest and operably connected to the motor, the actuation switch being configured to actuate the motor so as to shift the carriage in a second direction when the actuation switch is triggered by movement of the palm rest in an opposite first direction, whereby a user may place a hand on the palm rest and shift the palm rest in a selected direction so as to position a selected portion of the keyboard under the hand for ease of use.

16. The apparatus of claim 15 further comprising:

a positioning pulley rotatably mounted on the base and operably connected to the motor;

a reduction pulley coaxially mounted on the positioning pulley;

a carriage belt mounted on the carriage so as to frictionally engage the positioning pulley;

a pair of offset idler pulleys mounted on the base underneath the palm rest; and

a palm rest belt frictionally mounted between the reduction pulley and the idler pulleys and configured with a positioning tab located between the idler pulleys so as to selectively engage the palm rest, whereby the movement of the palm rest shifts the positioning tab, in

turn shifting the palm rest belt and rotating the reduction pulley, in turn rotating the positioning pulley and providing carriage position feedback to the motor.

17. A method of one-hand operation of a keyboard comprising the steps of:

- 5 positioning the keyboard on a carriage movable on a base;
 placing a hand on a palm rest movable on the base offset from the carriage;
 moving the palm rest in a first direction; and
 shifting the carriage in an opposite second direction as caused by the movement of the
palm rest in the first direction, whereby a selected portion of the keyboard is positioned
10 under the hand for ease of use.

18. The method of claim 17 comprising the further steps of:

- engaging the base with a motor mounted on the carriage;
 triggering at least one actuation switch coupled to the palm rest when the palm rest is
15 moved in the first direction; and
 actuating the motor upon triggering the actuation switch so as to shift the carriage in the
second direction.

19. The method of claim 18 comprising the further step of providing feedback to the motor
20 of the position of the carriage relative to the base through a positioning device mounted
in engaging relationship between the carriage and the base.

20. The method of claim 18 comprising the further steps of:

- shifting a palm rest cap mounted on the palm rest downwardly when the hand is placed
25 on the palm rest;
 triggering a power switch installed beneath the palm rest cap when the palm rest cap is
shifted downwardly; and
 providing power to the motor when the power switch is depressed, whereby the motor is
then enabled for actuation upon movement of the palm rest in the first direction.